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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/781,007

02/18/2004

Sang-Ho Kim

5000-1-459

2396

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01/18/2008

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EXAMINER

MARANDI, JAMES R

ART UNIT

PAPER NUMBER

4157

MAIL DATE

DELIVERY MODE

01/18/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/781,007	Applicant(s) KIM ET AL.	
	Examiner JAMES R. MARANDI	Art Unit 4157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 1 recites "... an OLT for assigning VCIs to each single-channel MPTSs received....". This is contrary to the disclosure made in paragraph [0028] of the application, where OLT converts digital broadcast data transmitted into optical signals. In such networks, ATM over SONET (US)/ SDH (Europe), the ATM process designates and manages the VCIs. Therefore, it does not make sense for an OLT assigning VCIs to each single-channel MPTSs as claimed.

For prior art consideration, Examiner will take the position that the ATM process designates and manages the VCIs.

Claim Rejections - 35 USC § 101

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Applicant is advised that should claims 1-2 be found allowable, claims 5-10 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

It appears that in claim 1, the applicants claiming (..an OLT for assigning VCIs..). This is not consistent with the disclosure. In claim 5, applicant is claiming (...an OLT for converting digital broadcasting), while, correctly and consistent with applicant's disclosure, leaving the task of VCI assignment to the ATM process. Other than this distinction, the invention of claims 1-2 is the same as the invention of claims 5-10.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in **Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966)**, that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows: (*See MPEP Ch. 2141*)

- a. Determining the scope and contents of the prior art;
- b. Ascertaining the differences between the prior art and the claims in issue;
- c. Resolving the level of ordinary skill in the pertinent art; and
- d. Evaluating evidence of secondary considerations for indicating obviousness or nonobviousness.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art disclosure (Figures 1 and 2, Paragraphs [0002] through [0016], hereinafter "AAPP"), in view of N. Terada et al., "an MPEG2-Based Digital CATV and VOD system using ATM-PON Architecture", IEEE Proceedings of Multimedia, 1996 (hereinafter "Terada").

Claim 1:

AAPP substantially discloses an optical transport network for providing broadcasting services (fig. 1), comprising: an OLT (Figure 1, element 11); an ATM cell conversion section for converting the output signals from the OLT into an ATM format and for outputting at least one broadcasting channel data from

each ATM cell (Figure 1, element 104) ; a switch for switching each digital broadcasting data output from the ATM cell conversion section to a subscriber (element 106).

The AAPP does not teach assigning VCIs to each of single-channel MPTSs received from a plurality of broadcasting service providers and converting the single-channel MPTSs into a plurality of ATM cells as claimed. However, Terada does. (Figure 3-1, Paragraphs 3.2 and 4.1). Terada discloses that the mechanism for assigning VCIs makes downstream bitrate lower, thus, permitting integration of different services.

The AAPP also does not teach a control section for receiving the header information in the ATM cell from the ATM cell conversion section, for receiving a desired broadcasting channel from the subscriber. Terada does (Terada, Figure 3, elements OSU, ch SEL). The AAPP also does not teach controlling the switch so that channel data outputted from the ATM cell conversion section can be corresponded to the channel desired by the subscriber. Terada does (Terada, Figure 3-1, elements SLT, OSU, and ch. SEL, set Top Box Channel selection control, paragraph 3.2).

Therefore, the combination of admitted prior art and Terada would have rendered claim 1 obvious to one of ordinary skills in the art for the benefits as outlined in Terada (paragraph 2.3).

Claim 2: The optical transport network as claimed in claim 1, wherein the header

information includes an ATM VCI field representing a communication path of a corresponding ATM cell, and a channel information field containing broadcasting station information corresponding to PID information of each broadcasting channel field included in a payload portion of the ATM cell. Terada further teaches this aspect (Figure 3-2, by definition the function of VCI in ATM is to set up a communication path for the traffic carried. MPEG-2 encoding and Transport stream construction contains PID information).

As methods of claims 3, and 4 describe the workings of the network claimed in claims 1 and 2, they are hereby rejected by the same analysis.

Claims 5,6,7,8, and 9 are further rejected by the same analysis as claims 1, and 2.

Claim 10 is further rejected. The connection between an Optical Line Terminal (OLT) and Optical Network Unit (ONU) is always “optical”, most logically optical fiber. The admitted prior art further confirms this point (applicant’s application, paragraph [0008])

Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES R. MARANDI whose telephone number is (571)270-1843. The examiner can normally be reached on 8:00 AM- 5:00 PM M-F, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vu Le can be reached on (571) 272-7332. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Patent Training Academy

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